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TAGS: [KSCA](#) [TSPL](#) [SENV](#) [AMGT](#) [OTRA](#) [APER](#) [HR](#)
SUBJECT: CROATIA REQUESTS EMBASSY SCIENCE FELLOWS

REF: STATE 30194

1. Summary: In response to reftel, Post supports a request from the Government of Croatia (GoC) to host Embassy Science Fellows in 2007. Post has received eight proposals from seven scientific institutions, with a commitment from the Ministry of Science, Education and Sports and the University of Zagreb to provide housing and support for any U.S. scientists coming to Croatia under this program. Two institutes located in Split have also committed to providing housing for their Science Fellows. Embassy point of contact is Marlene M. Nice; email: nicemm@state.gov; phone: 385 1 661 2225. (End summary).

Croatian Institute of Technology (HIT), Zagreb

2. Specific project:
Upgrade the Croatian Institute of Technology's IPR services and improve connections between research/academia and industry. The Ministry of Science, Education and Sports has asked Econoff to make this project the priority.

Background:
The HIT was established in March 2006 under the Ministry of Science, Education and Sport. The HIT is the leading national institution charged with linking the scientific community with the economy. Its main mission is to support and promote commercialization of technological and research projects. HIT's core business activities are: technology transfers, development of Croatia's national technology platform; technology foresight; business intelligence and international cooperation with similar institutions worldwide.

Specific Activities:
One of the HIT's main activities is the implementation of the program, TEST, which supports scientific and academic institutions by helping to transfer knowledge and new technologies into industry. Part of that process includes IPR issues, i.e. legislative regulations of copyrights, patent rights, etc. The HIT is requesting an IPR expert, possibly from the National Institute of Standards and Technology (NIST) to work in conjunction with its IPR team to help HIT become a regional role model in IPR services.

Timeframe: 6 to 12 weeks in either May or June 2007 or in Fall 2007

Area of expertise/discipline:
Lawyer with IPR specialization and working experience in the National Institute of Standards and Technology (NIST) or similar institution.

Housing: The Ministry of Science, Education and Sports will provide housing.

Office: The HIT will provide office space and other work requirements.

The Institute for Adriatic Crops (IAC), Split.

13. Specific project:

The Institute for Adriatic Crops (IAC) requests a Science Fellow experienced in writing proposals, organizing programs and coordinating research funding cooperation with international organizations and businesses. The IAC is also trying to strengthen its ties to industry, specifically in the area of agriculture/horticulture to increase the number of non-governmental sources for funding research.

Background:

As a candidate country for the EU, Croatia is eligible to apply for numerous EU funds targeted at IAC's scientific, research and extension activities. Although IAC staff is experienced in writing project proposals for GoC funds, the staff has limited experience in preparing smaller collaborative proposals for EU grants. The institute deals mainly with farmers and small companies, incapable of funding research. With a limited amount of government money available, industry is still incapable of supporting research in those fields.

The Institute for Adriatic Crops (IAC) is a public research institute under the Ministry of Science, Education and Sport. It is located on the Adriatic coast where typical Mediterranean crops are grown. The IAC conducts basic and applied research work in horticulture, food technology and forestry. It provides scientific and professional support to numerous farmers, cooperatives and enterprises as part of its extension role. The research staff from IAC is involved in scientific and extension projects supported mainly by the GoC or local communities. Recently the IAC changed its internal organization to strengthen relations among small and isolated research groups to increase collaboration among highly specialized experts. The research facilities were renovated, number and credentials of staff were increased, and effort has been refocused on development and improvement of the scientific infrastructure, mainly greenhouses, orchards and grape collections and laboratories.

Areas of expertise/discipline:

Experience in research, education and extension programs in the fields of food, agriculture and biotechnology. Scientific background, familiarity with horticulture and a working knowledge of the international industry.

Timeframe: 45 Days (flexible), May to mid July or from Mid August to end of September.

Housing and Office: The IAC will provide housing and office space in Split.

University Hospital for Infectious Diseases,
Zagreb

14. Specific Project: Diagnostic laboratory methods in addressing the challenge of emerging and re-emerging infectious diseases.

The University Hospital for Infectious Diseases requests a Science Fellow to collaborate on diagnostic/research activities in the field of Emerging and Re-emerging Infectious Diseases (EID/REID). The US scientist will work with Croatian physicians and scientists in preparation of high quality diagnostic reagents for the detection of pathogens causing EID/REID. The Science Fellow will also help in establishing new diagnostic techniques for the detection of pathogens causing EID/REID and to train young physicians/scientists. The availability of high quality diagnostic reagents may be the greatest limiting factor to effectively addressing EID/REID, especially in the case of viral diseases.

Background:

Founded in 1893, the University Hospital for Infectious Diseases is currently the regional leader in its field. The hospital has six reference Centers for AIDS, urogenital and sexually transmitted diseases, travelers' diseases, control of antimicrobial resistance, diagnoses and treatment of infectious diseases, viral hepatitis. The

hospital is currently developing a new Center for EID/REID, which will include the first bio-safety level three laboratory in Croatia for diagnosis and research of EID/REID. The laboratory will also provide support for a planned quarantine department. Infectious diseases, in light of recent EID/REID (anthrax, avian influenza, SARS, etc.), threats of bioterrorism and rapid global travel, have become an important part of global health research and policy development. Because of Croatia's increasing tourism industry and significant economic international interest in the country, health officials are preparing for imported cases of quarantine diseases such as ebola, Marburg, Congo-Crimean hemorrhagic fever (CCHF) etc., some of which are endemic in nearby Kosovo and Macedonia.

Areas of expertise/discipline:

Experience in basic laboratory diagnosis/research in EID/REID (mainly viruses, but also bacteria, parasites); experience in preparation of high quality diagnostic reagents EID/REID pathogens); participation in national and international projects in EID/REID; and high quality international publications in the field of EID/REID. The head of the hospital's Scientific Unit, Dr. Alemka Markotic, is requesting Thomas G. Ksiazek, chief of special pathogens branch at the National Center for Infectious Diseases, Centers for Disease Control.

Additional skills: Lecturing and training

Timeframe: 2 to 3 months; September to December 2007

Housing: The Ministry of Science, Education and Sport will provide housing.

Office/Work accommodations:

The hospital will provide lunch. The Scientific Unit will be available for office work and meetings. Diagnostic and research laboratories will be available at the hospital. The hospital's main lecturing hall will be available for presentations and workshops. All necessary assistance will be provided the hospital staff.

15. Specific Project Description: (This is the second proposal from the University Hospital for Infectious Diseases) Support activities for the implementation of collaborative research projects between Croatian and U.S. scientists in the area of infectious diseases.

The hospital is seeking a Science Fellow who can help Croatian scientists in U.S. funding application preparation, submission and management. The Science Fellow would also help prepare drafts for several collaborative projects in infectious disease research. The Science Fellow will be introduced to the research activities at the hospital, develop new partnerships in the U.S as well as topics for future collaboration, and organize a lecture series and workshops focused on the application submission process. The Science Fellow will work with scientists at the Medical Faculty in the University of Rijeka and with collaborators in Dubrovnik.

Areas of expertise/discipline:

Experience in basic laboratory clinical research in infectious diseases (viruses, bacteria, parasites); participation in national and international projects in infectious diseases; experience in research projects evaluation, preparation and management; experience with an international agency which addresses global health challenges through innovative and collaborative research and training programs. The head of the hospital's Scientific Unit, Dr. Alemka Markotic, is requesting Dr. Ann Davis from the NIH for this Science Fellowship.

Additional skills: lecturing

Timeframe: 2 to 3 months; September to December 2007

Housing: The Ministry of Science, Education and Sport will provide housing.

Office/Work accommodations:

The hospital will provide lunch. The Scientific Unit will be available for office work and meetings. Diagnostic and research laboratories will be available at the hospital. The hospital's main lecturing hall will be available for presentations and workshops. All necessary assistance will be provided the hospital staff.

Institute of Oceanography and Fisheries, Split

16. Specific Project: Numerical modeling of a tsunami in the Adriatic Sea.

The Science Fellow will contribute to the national research project, "Investigation and monitoring systems for unusual Adriatic dynamics." The research encompasses various oceanographic phenomena such as tsunamis, density current, internal waves and tides and nonlinear atmosphere-ocean coupling. Specifically the Fellow will do research on the generation, spreading and coastal inundation of a dangerous tsunami with its source in the Adriatic Sea, by using a numerical model capable of producing reliable results. Apart from the transfer of knowledge, collaboration and networking, the collaborative research will culminate in a research paper published in a high-quality peer-reviewed journal. Furthermore, it is expected that the Science Fellow will share knowledge and experience in numerical modeling of a tsunami with Croatian scientists.

Background:

A destructive tsunami could be fatal for the coastal areas and cities, particularly in the south Adriatic (e.g. Dubrovnik) where tsunamis have occurred in the past. As almost no research on this

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topic has been previously performed on the Adriatic, this short-term research and further collaboration will lead to worldwide collaboration.

Areas of expertise/discipline:

Working knowledge of a tsunami numerical model.

Timeframe: 3 months in 2008

Housing and Office space: The Institute will provide both.

University of Zagreb, Department of Science and Technology

17. Specific project: The University of Zagreb's Science and Technology Department is requesting a Science Fellow who can help develop the newly established Research Office as well as set the stage future collaboration between US and Croatian researchers.

Background:

The University of Zagreb is in the process of establishing the Research Office, with the goal of strengthening the performance and the reputation of the University in research and knowledge transfer. The Rector has recently nominated a steering committee which is working now to open the office by the end of May 2007. The university is currently advertising the position of Research Office Director.

The main objective of the Office is to develop resources to be able to help with international research grants, research contracts, intellectual property, ethical issues, research integrity and performance as well as professional development and information resources. The Office will work closely with faculties, departments and other units of the University to support the University's research staff and students.

Area of expertise/discipline: Experience in international grant procedures, contracts and intellectual property

Timeframe: three months, preferably May to July 2007, or September to November

Housing: The University of Zagreb will provide office space and housing.

Rudjer Boskovic Institute, Zagreb

18. Specific Project: Surface forces on atomic scale applied in

marine science and nanotechnology.

The project is funded by Ministry of Science, Education and Sports at the Rudjer Boskovic Institute, Zagreb. Specifically, the Science Fellow will share knowledge and expertise in the application of Atomic Force Microscopy (AFM) to study marine gel phase, its properties and formation mechanism, in relation to the large scale (sol-gel phase transition) phenomenon occurring episodically in the northern Adriatic Sea.

Background:

The Rudjer Boskovic Institute (RBI) is the largest Croatian research center in sciences and science applications. In the multi-disciplinary environment of the Institute, more than 500 academic staff and graduate students work on problems in experimental and theoretical physics, chemistry and physics of materials, organic and physical chemistry, biochemistry, molecular biology and medicine, environmental and marine research and computer science and electronics. RBI is a national institution dedicated to research, higher education and provision of support to the academic community, to state and local governments and to technology-based industry.

The Institute's current project, "Surface forces on atomic scale applied in marine science and nanotechnology," is aimed at bringing biophysical concepts and approaches to the study of the organization and function of the organic matter in the sea.

RBI's long-term studies of surface-active particles, marine vesicles and gel microparticles provided evidence that biotic, as well as abiotic transformation of organic matter at the micro- and nanoscale are at the root of macroscopic phenomena in the sea (e.g. aggregation phenomena leading to marine gels, appearing episodically in the Adriatic Sea). RBI's experiments show it is possible to directly explore these processes at the scale that determines the fate of organic matter in the sea. The results of studying marine gel at nanoscale and the biophysical mechanism of its formation are expected to enable technological exploitation of marine gel as a new biomaterial.

The group for bioelectrochemistry and surface imaging consists of four researchers, two graduate students and a technician. Regarding equipment there is Nanoscope MultiMode SPM (Veeco Instruments) and fully equipped laboratory for electroanalysis, epifluorescence microscopy, microorganism cultures and isolation.

Areas of expertise/discipline:

Knowledge of biophysics, polymer science and expertise in AFM techniques, application to the research in polymer gels.

Timeframe: 6 to 10 weeks from mid-May to the end of July or in September

Office Space:

Shared space will be provided by Rudjer Boskovic in Zagreb. There are also opportunities to participate in field work (sampling cruises in the Adriatic Sea) in collaboration with the RBI Center for Marine Research in Rovinj.

Housing: The Ministry of Science, Education and Sport will provide housing.

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Zagreb, School of Medicine
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19. Specific Project:

Assist in development of an Office for Grant Management as well as the Institutional Review Board at the University of Zagreb's School of Medicine.

Background:

The School of Medicine has recently begun to reorganize its administration for research grants and related tasks to align it with processes used by prominent institutions in the U.S. (ie Yale University School of Medicine). In January 2007 the school established a new Institutional Review Board (Ethics Committee) with three main components: Human Research Committee, Animal Use

Committee and an Office for Academic Integrity. The university also plans to create a new Division/Office for Grant Management.

The school is requesting a Science Fellow to work in the following areas: Efficient grant management administration (including the preparation of a Principal Investigator's Handbook and accompanying forms, advice on management of patents, licenses, extramural research contracts with both public and private sector, intellectual rights etc.); efficient organization of Office for Research Integrity with preparation of guidelines for responsible research conduct (including responsibilities of research supervisors and trainees, data management, publication practices, authorship, peer review and privileged information, collaborations, human subject research, financial conflicts of interest, and conflicts of commitment) and procedures for handling allegations of scientific fraud.

Areas of expertise/disciplines: experience in grant management and research integrity.

Timeframe: 1 to 2 months; Fall 2007

Housing and office space:

The University of Zagreb School of Medicine will provide housing and office space at the Croatian Institute for Brain Research located on the university campus.

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